



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In re Application of:**

Akram et al.

**Serial No.:** 09/590,621

**Filed:** June 8, 2000

**For:** STEREOLITHOGRAPHIC METHOD  
FOR FABRICATING STABILIZERS FOR  
FLIP-CHIP TYPE SEMICONDUCTOR  
DEVICES

**Examiner:** N. Berezny

**Group Art Unit:** 2813

**Attorney Docket No.:** 2269-3936US  
(99-0066.00/US)

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Supplemental Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 or PTO/SB/08 be considered by the Examiner and made of record. Copies of the listed documents are enclosed pursuant to 37 C.F.R. § 1.98(a).

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Supplemental Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicants herein that no other possible material information as defined in 37 C.F.R. § 1.56 (b) exists.

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
6,251,488	06/26/01	Miller et al.
6,259,962	07/10/01	Gothait
6,268,584	07/31/01	Keicher et al.
6,326,698	12/04/01	Akram
6,391,251	05/21/02	Keicher et al.
6,506,671	01/14/03	Grigg
6,525,408	02/25/03	Akram et al.
6,544,821	04/08/03	Akram
6,548,897	04/15/03	Grigg
6,569,753	05/27/03	Akram et al.
6,630,365	10/07/03	Farnworth et al.
6,649,444	11/18/03	Earnworth et al.

Other Documents

U.S. Patent Application Publication No. 2002/0105074 A1 to Akram et al., dated August 8, 2002

U.S. Patent Application Publication No. 2002/0171177 A1 to Kritchman et al., dated November 21, 2002

U.S. Patent Application Publication No. 2003/0022462 A1 to Farnworth et al., dated January 30, 2003

U.S. Patent Application Publication No. 2003/0089999 A1 to Akram, dated May 15, 2003

U.S. Patent Application Publication No. 2003/0092220 A1 to Akram, dated May 15, 2003

U.S. Patent Application Publication No. 2003/0098499 A1 to Akram et al., dated May 29, 2003

U.S. Patent Application Publication No. 2003/0139030 A1 to Grigg, dated July 24, 2003

U.S. Patent Application Publication No. 2003/0151167 A1 to Kritchman et al., dated August 14, 2003

U.S. Patent Application Publication No. 2003/0170921 A1 to Akram, dated September 11, 2003

U.S. Patent Application Publication No. 2003/0173665 A1 to Grigg, dated September 18, 2003

U.S. Patent Application Publication No. 2003/0176016 A1 to Grigg, dated September 18, 2003

U.S. Patent Application Publication No. 2003/0203612 A1 to Akram et al., dated October 30, 2003

MILLER et al., "Maskless Mesoscale Materials Deposition", Deposition Technology, September 2001, pages 20-22

MILLER, "New Laser-Directed Deposition Technology", Microelectronic Fabrication, August 2001, page 16

Webpage, Objet Prototyping the Future, Objet FullCure700 Series, 1 page

Webpage, Objet Prototyping the Future, How it Works, 2 pages

U.S. Patent Application No. 09/590,527, filed June 8, 2000, entitled "Structures For Stabilizing Semiconductor Devices Relative to Test Substrates and Methods for Fabricating the Stabilizers", inventor Salman Akram

U.S. Patent Application No. 10/201,208, filed July 22, 2002, entitled "Thick Solder Mask for Confining Encapsulant Material Over Selected Locations of a Substrate, Assemblies Including the Solder Mask, and Methods", inventor Grigg et al.

U.S. Patent Application No. 10/688,354, filed October 17, 2003, entitled "Thick Solder Mask for Confining Encapsulant Material Over Selected Locations of a Substrate and Assemblies Including the Solder Mask", inventor Grigg et al.

Applicants offer to supply any explanation or discussion of the documents which the Examiner feels is necessary or desirable and which is requested.

This Supplemental Information Disclosure Statement is believed to be filed before the mailing date of the first Office Action on the merits and concurrently with the filing of an RCE in the above-identified application.

Respectfully submitted,



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Date: December 15, 2003  
TLW/sls:rmh

Enclosures: Form PTO-1449 or PTO/SB/08  
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PTO/SB/08A (10-01)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 3

**Complete if Known**

Application Number	09/590,621
Filing Date	June 8, 2000
First Named Inventor	Akram et al.
Group Art Unit	2813
Examiner Name	N. Berezny
Attorney Docket Number	3936US (99-0066.00/US)

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
		US- 6,251,488	06/26/01	Miller et al.	
		US- 6,259,962	07/10/01	Gothait	
		US- 6,268,584	07/31/01	Keicher et al.	
		US- 6,326,698	12/04/01	Akram	
		US- 6,391,251	05/21/02	Keicher et al.	
		US- 6,506,671	01/14/03	Grigg	
		US- 6,525,408	02/25/03	Akram et al.	
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		US- 6,548,897	04/15/03	Grigg	
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		US- 6,649,444	11/18/03	Earnworth et al.	
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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		Application Number	09/590,621
		Filing Date	June 8, 2000
		First Named Inventor	Akram et al.
		Group Art Unit	2813
		Examiner Name	N. Berezny
Sheet 2 of 3	Attorney Docket Number	39361US (99-0066 00/1US)	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		U.S. Patent Application Publication No. 2002/0105074 A1 to Akram et al., dated August 8, 2002	
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		U.S. Patent Application Publication No. 2003/0170921 A1 to Akram, dated September 11, 2003	
		U.S. Patent Application Publication No. 2003/0173665 A1 to Grigg, dated September 18, 2003	
		U.S. Patent Application Publication No. 2003/0176016 A1 to Grigg, dated September 18, 2003	

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<sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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		Filing Date	June 8, 2000
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		Group Art Unit	2813
		Examiner Name	N. Berezny
		Attorney Docket Number	39361US (99-0066 00/US)

<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		U.S. Patent Application Publication No. 2003/0203612 A1 to Akram et al., dated October 30, 2003	
		MILLER et al., "Maskless Mesoscale Materials Deposition", Deposition Technology, September 2001, pages 20-22 ✓	
		MILLER, "New Laser-Directed Deposition Technology", Microelectronic Fabrication, August 2001, page 16 ✓	
		Webpage, Objet Prototyping the Future, Objet FullCure700 Series, 1 page ✓	
		Webpage, Objet Prototyping the Future, How it Works, 2 pages ✓	
		U.S. Patent Application No. 09/590, 527, filed June 8, 2000, entitled "Structures For Stabilizing Semiconductor Devices Relative to Test Substrates and Methods for Fabricating the Stabilizers", inventor Salman Akram ✓	
		U.S. Patent Application No. 10/201,208, filed July 22, 2002, entitled "Thick Solder Mask for Confining Encapsulant Material Over Selected Locations of a Substrate, Assemblies Including the Solder Mask, and Methods", inventor Grigg et al. ✓	
		U.S. Patent Application No. 10/688,354, filed October 17, 2003, entitled "Thick Solder Mask for Confining Encapsulant Material Over Selected Locations of a Substrate and Assemblies Including the Solder Mask", inventor Grigg et al. ✓	

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